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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,670	05/16/2001	Michael A. Sokol	023925-00006	1535

32294 7590 11/04/2004

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EXAMINER

KIM, HONG CHONG

ART UNIT PAPER NUMBER

2186

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/855,670

Applicant(s)

SOKOL, MICHAEL A.

Examiner

Hong C Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*Idh*

12/2

### Detailed Action

1. Claims 1-32 are presented for examination. This office action is in response to the amendment filed on 8/18/04.
2. The objection to the claims has been withdrawn because of the Amendment.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-32 are rejected under 35 U.S.C. 102(a) as being anticipated by Roth U.S. Patent 6,430,666.

As to claim 1, Roth discloses the invention as claimed. Roth discloses a memory management method comprising the steps of: assigning pointers to free memory locations (Fig. 4, free list and col. 8 lines 25+); linking said pointers to one another creating a linked list of free memory locations having a beginning and an end (Fig. 4 Ref. Free List col. 7 lines 23-39); assigning a free head pointer to a memory location indicating said beginning of free memory locations (col. 4 lines 7-8 and Fig. 4 Ref. Free List); assigning a free tail pointer to a memory location indicating said end of free memory locations (Fig. 4 and col. 8 lines 51+); assigning an initial data pointer to said memory location assigned to said free head pointer (Fig. 4 and col. 4 lines 7-8 "The

head of the free list indicates the first available memory location in memory” and 28-30 ‘Once an entry is made into a list, the head is unchanged on adds to the list’ read on this limitation, in other words, a new list starts at the head of the free list. Also see list1 or list2 and col. 7 lines 46-48, assigning head reads on this limitation); assigning an end of data pointer to a last data memory location (Fig. 4 and col. 4 lines 20+, specifically, lines 40-41 “The selected list tail is updated on each add operation” reads on this limitation since the updated list tail is the end of data pointer and the last data memory location in the current data list); assigning said free head pointer to a next memory location linked to said last data memory location assigned to said end of data pointer, wherein said next memory location indicates said beginning of free memory locations (Fig. 4 and col. 7 lines 28+ and col. 8 lines 51+, updating a free list after releasing a free memory location for data use).

As to claim 2, Roth discloses the invention as claimed above. Roth further discloses when data to be saved is only large enough to occupy one memory location said end of data pointer is assigned to said memory location assigned to said initial data pointer (col. 8 line 51 thru col. 9 line 13 memory locations are removed from free list during add operations).

As to claim 3, Roth discloses the invention as claimed above. Roth further discloses when data to be saved is larger than one memory location the method comprises the steps of: assigning a sufficient number of memory locations linked to

said memory location assigned to said initial data pointer (Fig. 4 and col. 8 line 51 thru col. 9 line 13 memory locations are removed from free list during add operations).

As to claim 4, Roth discloses the invention as claimed above. Roth further discloses linking said memory location assigned to said free tail pointer to said memory location assigned to said initial data pointer when said data is to be indicated as free memory; and assigning said free tail pointer to said last data memory location assigned to said end of data pointer (Fig. 4 and col. 8 line 51 thru col. 9 line 13 memory locations are removed from free list during add operations).

As to claim 5, Roth discloses the invention as claimed. Roth discloses a memory management method comprising the steps of: assigning pointers to free memory locations (Fig. 4 free list and col. 8 lines 25+); linking said pointers to one another creating a linked list of free memory locations having a beginning and an end (Fig. 4 col. 7 lines 23-39); assigning a free head pointer to a memory location indicating said beginning of free memory locations (Fig. 4 Free List); assigning a free tail pointer to a memory location indicating said end of free memory locations (Fig. 4 and col. 8 lines 51+); linking said memory location assigned to said free tail pointer to said memory location assigned to an initial data pointer when memory locations occupied by data is to be indicated as free memory (Fig. 4 , col. 4 lines 7-8 "The head of the free list indicates the first available memory location in memory" and 28-30 'Once an entry is made into a list, the head is unchanged on adds to the list' read on this limitation, in

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other words, a new list starts at the head of the free list. Also see list1 or list2 and col. 7 lines 46-48, assigning head reads on this limitation, and col. 8 line 51 thru col. 9 line 13 removed from free list during add operations); and assigning said free tail pointer to said last data memory location assigned to said end of data pointer (Fig. 4 and col. 4 lines 20+, specifically, lines 40-41 "The selected list tail is updated on each add operation" reads on this limitation since the updated list tail is the end of data pointer and the last data memory location in the current data list and col. 7 lines 30+ and col. 8 lines 51+, releasing a free memory location for data use).

As to claim 6, Roth discloses the invention as claimed above. Roth further discloses assigning an initial data pointer to said memory location assigned to said free head pointer (Fig. 4 , list1 or list2 and col. 7 lines 30+ and col. 8 lines 52+, releasing a free memory location for data use); assigning an end of data pointer to a last data memory location (Fig. 4 and col. 7 lines 30+ and col. 8 lines 51+, releasing a free memory location for data use); assigning said free head pointer to a next memory location linked to said last data memory location assigned to said end of data pointer, wherein said next memory location indicates said beginning of free memory locations (Fig. 4 and col. 7 lines 28+ and col. 8 lines 51+, updating a free list after releasing a free memory location for data use).

As to claim 7, Roth discloses the invention as claimed above. Roth further discloses when data to be saved is only large enough to occupy one memory location

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said end of data pointer is assigned to said memory location assigned to said initial data pointer (Fig. 4 and col. 8 line 51 thru col. 9 line 13, memory locations are removed from free list during add operations).

As to claim 8, Roth discloses the invention as claimed above. Roth further discloses when data to be saved is larger than one memory location the method comprises the steps of: assigning a sufficient number of memory locations linked to said memory location assigned to said initial data pointer (Fig. 4 and col. 8 line 51 thru col. 9 line 13, memory locations are removed from free list during add operations).

As to claims 9-12, 17-20, and 25-28, the claims 9-12, 17-20, and 25-28 encompass the same scope of the invention as that of the claims 1-4. Therefore, the claims 9-12, 17-20, and 25-28 are rejected for the same reason as the claim 1-4.

As to claims 13-16, 21-24, and 29-32, the claims 13-16, 21-24, and 29-32 encompass the same scope of the invention as that of the claims 5-8. Therefore, the claims 13-16, 21-24, and 29-32 are rejected for the same reason as the claim 5-8.

#### ***Response to Amendment***

4. Applicant's arguments filed on 8/18/04 have been fully considered but they are not deemed to be persuasive.

Applicant's remarks that the references not teaching assigning an initial data pointer to the memory location assigned to the free head pointer and assigning an end of data pointer to a last memory location is not considered persuasive.

Roth discloses assigning an initial data pointer to the memory location assigned to the free head pointer (Fig. 4 and col. 4 lines 7-8 "The head of the free list indicates the first available memory location in memory" and 28-30 'Once an entry is made into a list, the head is unchanged on adds to the list' read on this limitation, in other words, a new list starts at the head of the free list. Also see list1 or list2 and col. 7 lines 46-48, assigning head reads on this limitation) and assigning an end of data pointer to a last memory location (Fig. 4 and col. 4 lines 20+, specifically, lines 40-41 "The selected list tail is updated on each add operation" reads on this limitation since the updated list tail is the end of data pointer and the last data memory location in the current data list). Therefore broadly written claims are disclosed by the references cited.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within



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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (571) 272-4181. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (571) 272-4180.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

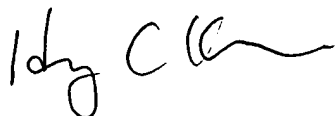
**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to TC-2100:**  
Official (703) 872-9306

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Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

A handwritten signature in black ink, appearing to be 'HK' followed by a stylized flourish.

HK

Primary Patent Examiner

October 31, 2004